DOGGER BANK D WIND FARM

NON-STATUTORY CONSULTATION
WEBINAR PRESENTATION
19 OCTOBER 2023

Welcome

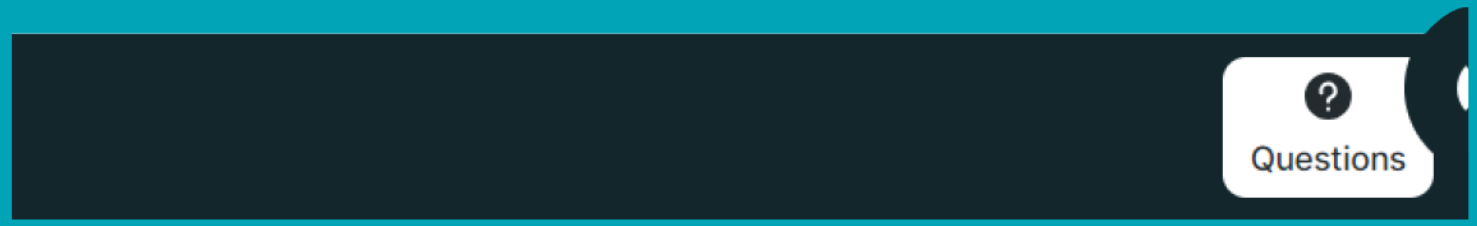
Agenda

- Taking part in today’s webinar
- Team introductions
- The Project
- Q&A
- Close

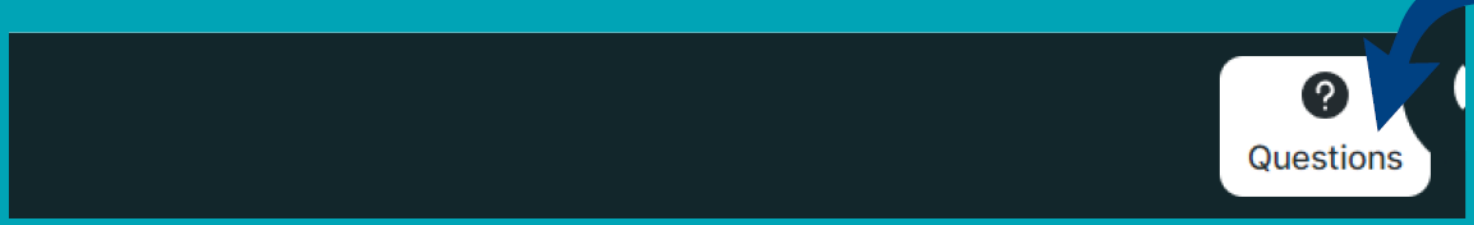
Taking part in today's webinar

- Please listen and be respectful of other people's views
- You'll be able to submit questions during the presentation (we'll explain how to do this on the next slide)
- This webinar will be recorded and posted on the website at www.doggerbankd.com

How to submit questions



How to submit questions



Use the questions button in the right hand corner to submit your questions.

How to submit questions

- Questions will not be attributed to individuals
- We will go through as many as we can during the Q&A and summarise questions and responses on our website

Who’s in the room

From SSE Renewables

- Rob Cussons, Project Manager
- Fraser Andrews, Engineering Manager
- Jamie Watt, Lead Onshore Consents Manager
- Rob Goodchild, Lead Offshore Consents Manager
- Rachel Palmer, Community Relations Manager

From Royal Haskoning

- Abbie Garry, Senior Environmental Consultant

From Copper Consultancy

- Rober Kimber, Senior Account Manager

From Katie Chappell Live Illustration

- Katie Chappell

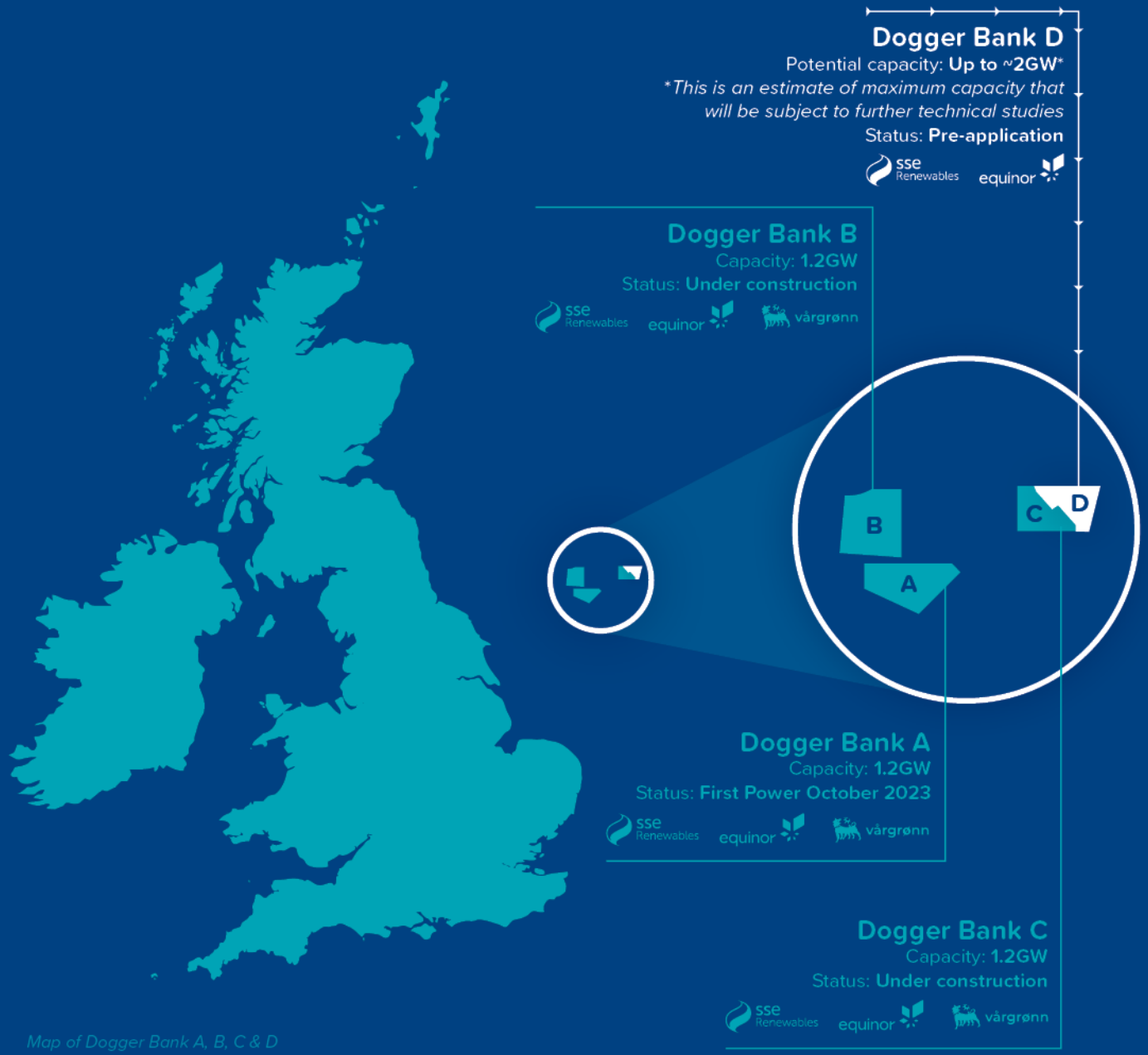
DOGGER BANK D
WIND FARM

About Dogger Bank D

Dogger Bank D is a proposed new fourth phase of the Dogger Bank Wind Farm, the world's largest offshore wind farm.

We are exploring different opportunities for how to use the energy produced by Dogger Bank D:

- **Electrical transmission**: Providing electricity for homes and businesses by linking to the transmission system, either via a connection into the UK national grid or a connection offshore to a wider coordinated network to Europe.
- **Hydrogen production**: Producing hydrogen in a new large-scale onshore facility in the East Riding of Yorkshire to connect to a wider hydrogen network



Map of Dogger Bank A, B, C & D

Dogger Bank D offshore facts

Up to 128 wind turbines
with associated support structures and foundations fixed to the seabed

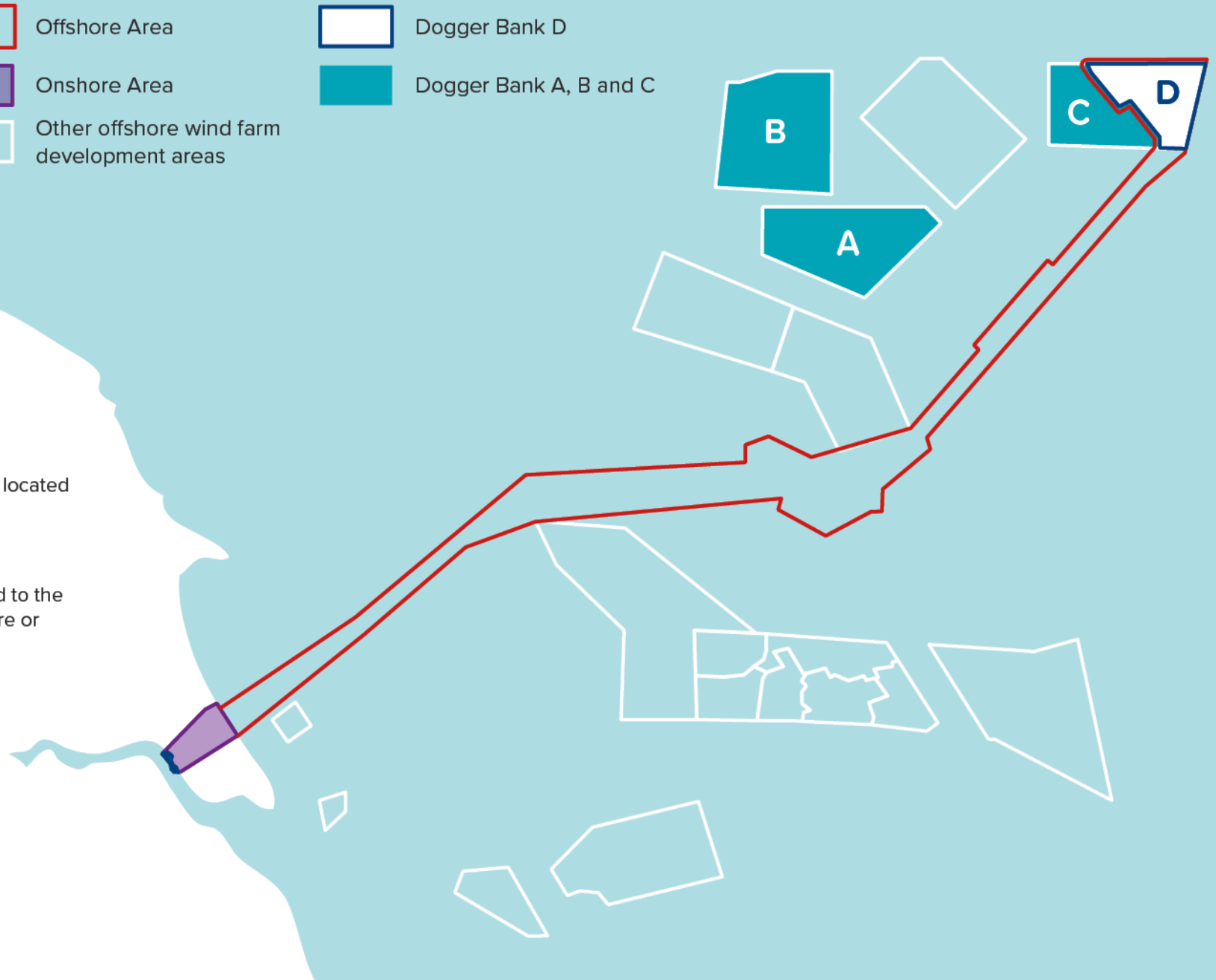
210km distance to shore
at its closest point, off the northeast coast of England

262km²
is the offshore array area in which the wind turbines are located

Up to six offshore platforms
with associated support structures and foundations fixed to the seabed, to facilitate the export of electricity to an onshore or offshore connection point

Up to six subsea cables
for electricity transmission

A network of subsea inter-array cables
linking the individual wind turbines to each other and to the offshore platforms



Who are the developers?

Dogger Bank D is being developed by a 50 / 50 joint venture between SSE Renewables and Equinor, two of the world's leading companies in the development and operation of offshore wind energy. Both companies were involved in the design and planning consent of Dogger Bank Wind Farm, the world's largest offshore wind farm.

sse Renewables

equinor

The planning application process

As a Nationally Significant Infrastructure Project (NSIP), Dogger Bank D must follow the procedures set out in the Planning Act 2008 which provides the framework for how NSIPs are developed.

Timeline

The timescales for these milestones are indicative.

Rationale for Dogger Bank D

- Able to maximise the capacity of the eastern portion of the original Dogger Bank C area and take advantage of advancements in offshore wind technology.
- Helps to meet the UK Government's target to increase offshore wind capacity to 50GW by 2030.
- Homegrown, clean energy from offshore wind farms can power millions of homes without burning fossil fuels.
- Helps to meet the UK Government's targets for a complete decarbonisation of the electricity system to reach Net Zero by 2035.
- By generating more energy from offshore wind, the UK can transition to a secure and affordable energy system.
- Helps to meet the UK Government's target for at least 5GW of hydrogen produced by water electrolysis.

THE HYDROGEN PRODUCTION OPPORTUNITY

Hydrogen production

We are exploring an opportunity to use the electricity generated by Dogger Bank D to produce carbon-neutral green hydrogen by splitting water via electrolysis into hydrogen and oxygen.

What is Hydrogen?

- Hydrogen (H_2) is the simplest chemical element, and is found in many places, including water (H_2O).
- Because of its abundance it can play a key role in the route to Net Zero.
- When used as a fuel, hydrogen only emits water vapour into the atmosphere.
- Hydrogen created through renewable power is called green hydrogen.

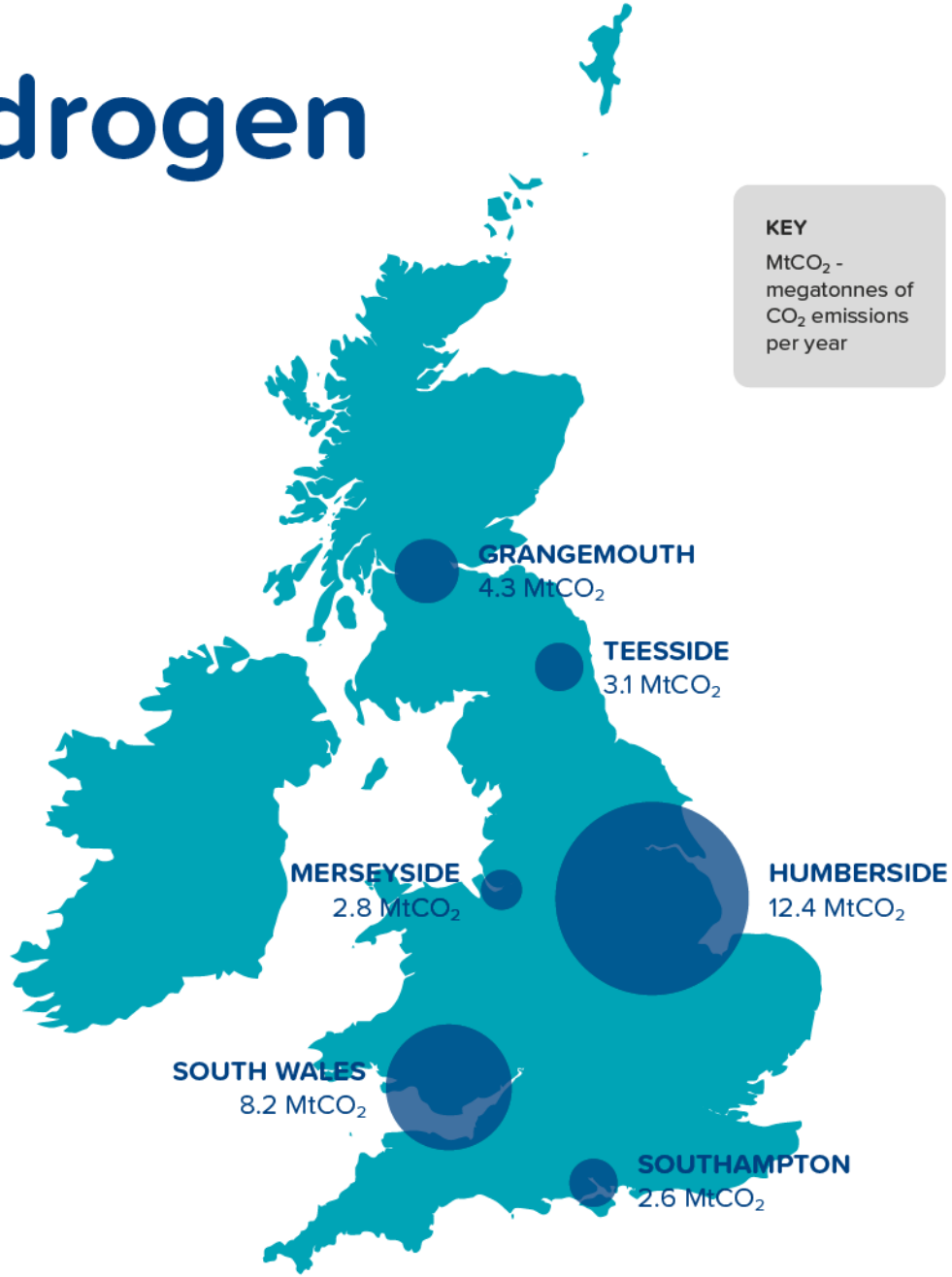
How we can use the hydrogen for the Humberside

Decarbonising the Humber region

The Humber region emits more carbon dioxide than any other UK industrial cluster, providing opportunities for a number of companies including Equinor and SSE to collaborate to achieve large-scale decarbonisation.

Decarbonising the Humber region

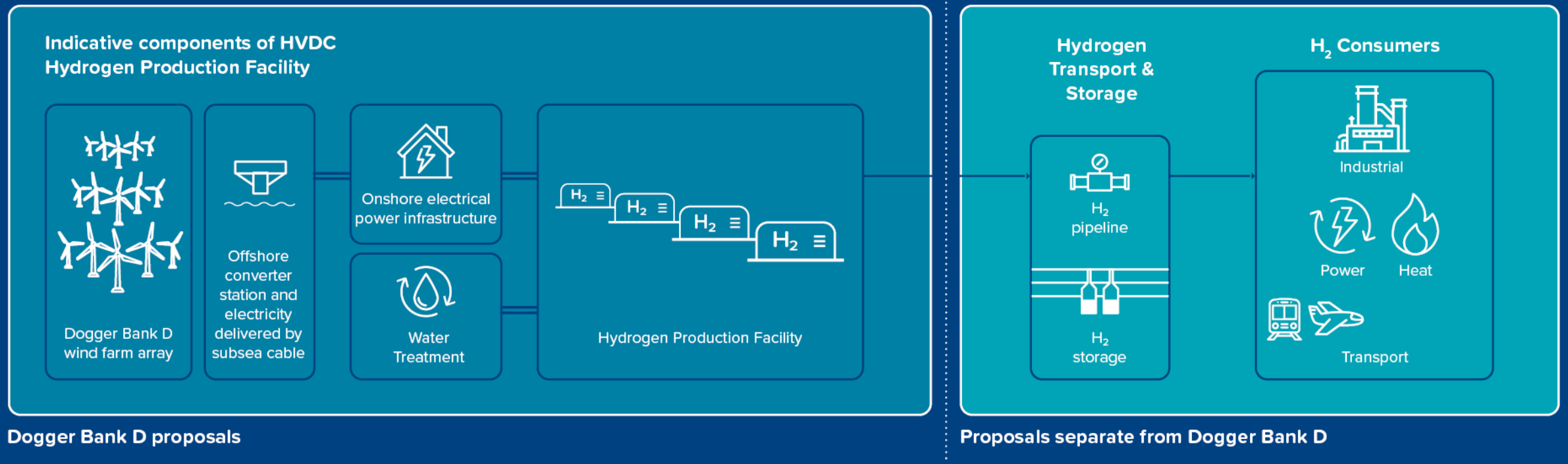
- In the steel and chemicals industries as a replacement for fossil fuel reliant processes
- In difficult to electrify transportation such as tankers
- As a way to transfer variable wind energy into storable clean energy - an important factor in providing energy security and flexibility.



The UK's largest industrial clusters by emissions

How hydrogen production would work

Dogger Bank D Hydrogen Production Value Chain



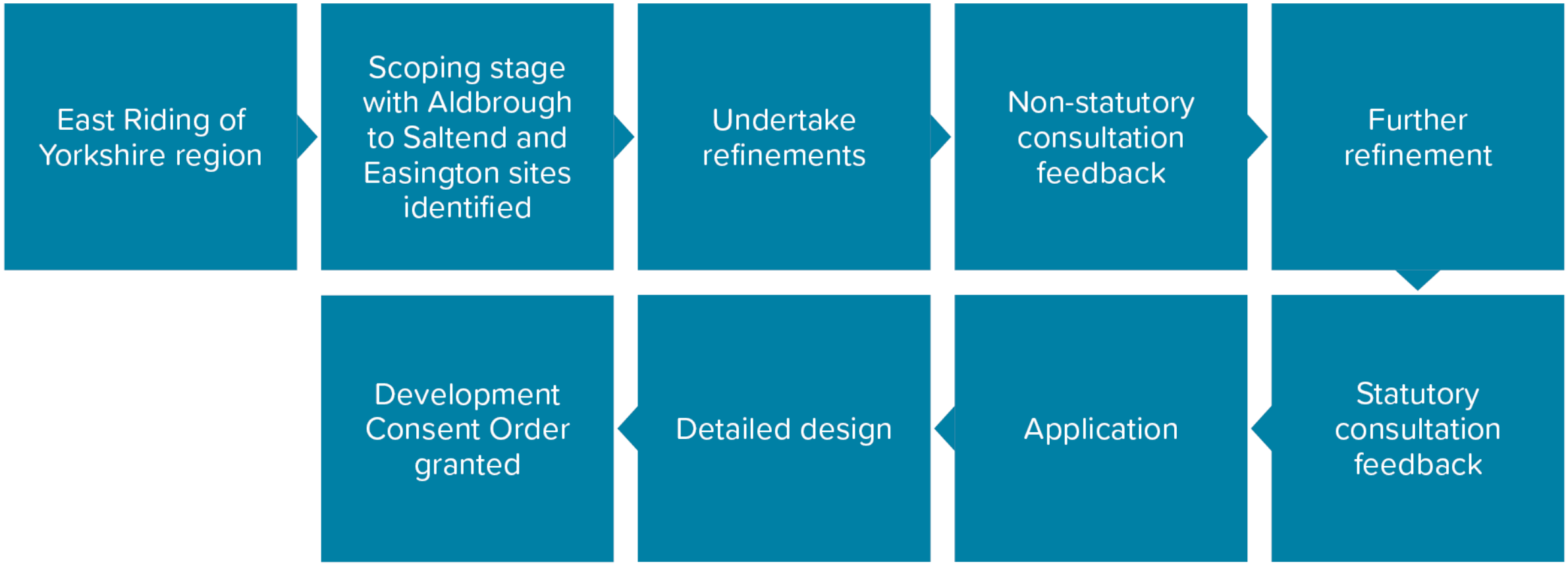
Dogger Bank D proposals

Proposals separate from Dogger Bank D

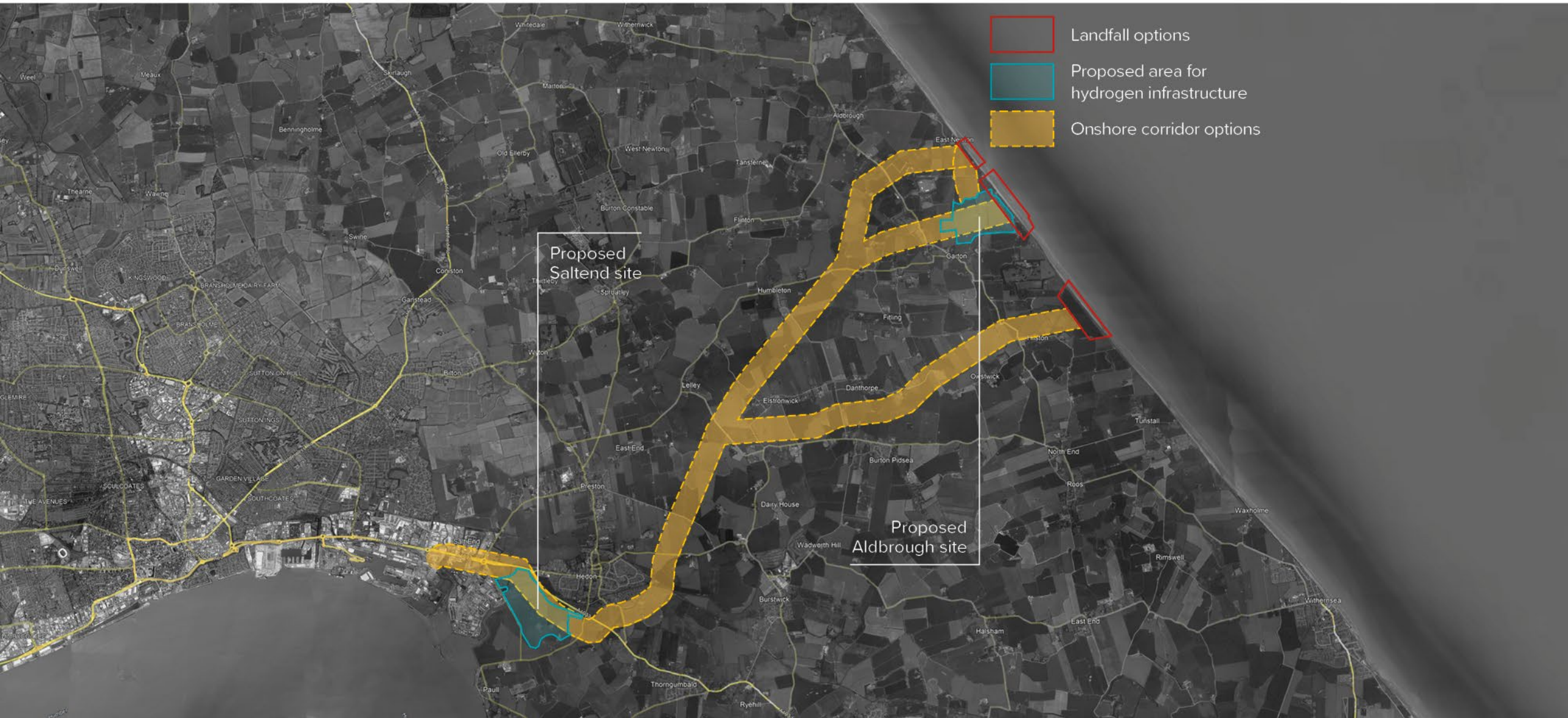
The site selection process for the hydrogen infrastructure

- Engineering requirements
- Principles of good design
- Corridors identified with most direct route
- Minimise environmental impact
- Minimise technical risks
- Minimise requirement for additional infrastructure

The site selection process for the hydrogen infrastructure



The potential sites of the hydrogen infrastructure



THE ELECTRICAL TRANSMISSION OPPORTUNITY

Connecting to the transmission system

- We are also exploring an opportunity to bring the energy from Dogger Bank D to an offshore connection point approximately 130km from the coast.
- National Grid Electricity Transmission (NGET) would provide a connection to a point onshore for the electricity to directly enter the national grid.
- This will require a separate planning application by NGET for the connection and associated infrastructure such as an onshore substation and cables.
- This opportunity is part of National Grid's ongoing Holistic Network Design (HND).

Emerging opportunities

The North Sea is already a powerhouse for green energy production, but it could also become a hub to increase energy security for the UK.

The development of Dogger Bank D could be coordinated with an interconnector between the UK and another country's electricity market to form a multi-purpose interconnector.

This would potentially allow the more efficient use of offshore electrical infrastructure, reducing the need to curtail wind farm output in periods of oversupply in the UK, and thereby reducing costs for consumers.

PROTECTING AND ENHANCING THE ENVRINOMENT

Protecting and enhancing the environment

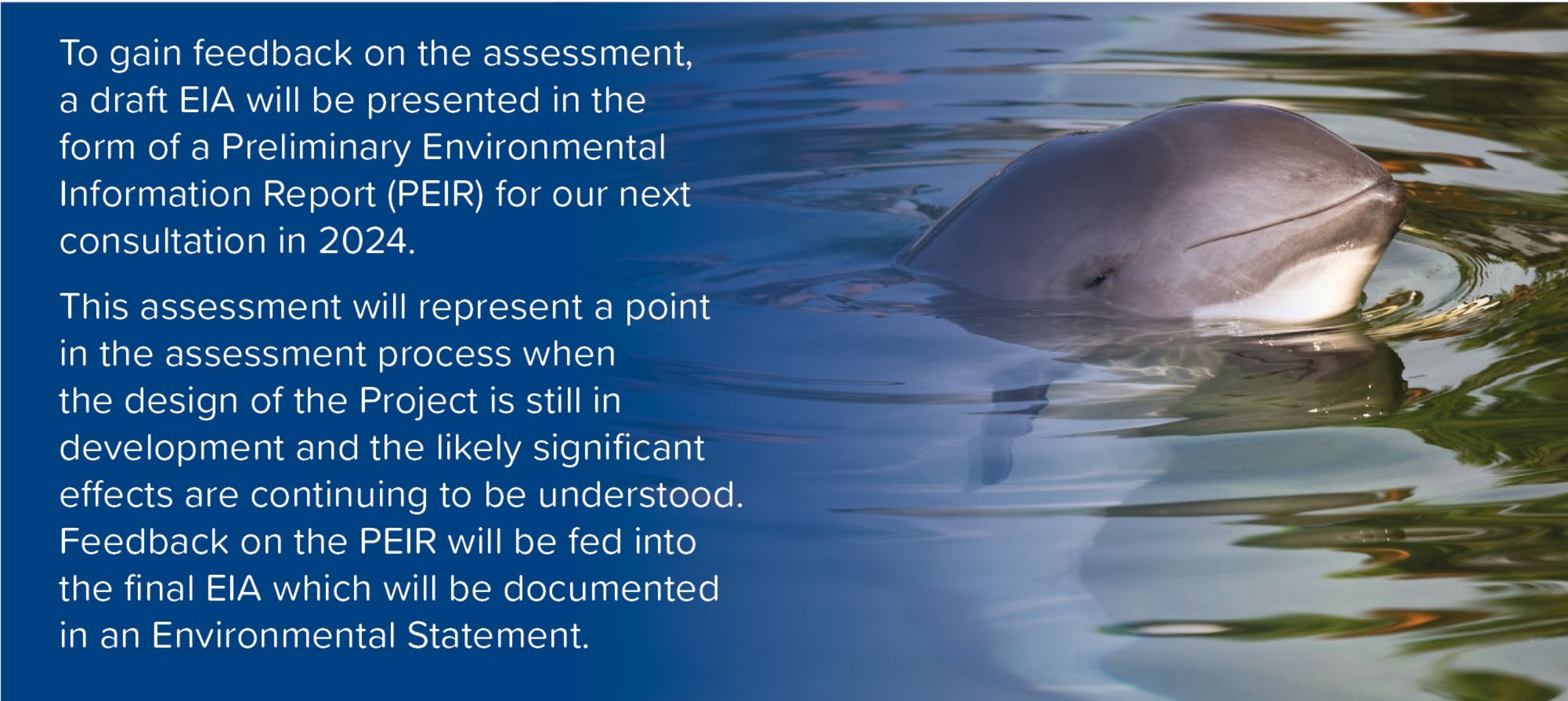
We will be assessing the potential impacts of the project, on both the offshore and onshore environment and looking at ways to keep disturbance to people and wildlife to a minimum.

We will undertake an Environmental Impact Assessment (EIA) which is an important part of the pre-application process and informs how the environment will be protected during the construction, operation and decommissioning phases.

Protecting and enhancing the environment

To gain feedback on the assessment, a draft EIA will be presented in the form of a Preliminary Environmental Information Report (PEIR) for our next consultation in 2024.

This assessment will represent a point in the assessment process when the design of the Project is still in development and the likely significant effects are continuing to be understood. Feedback on the PEIR will be fed into the final EIA which will be documented in an Environmental Statement.



CONSULTATION PROCESS

The consultation process

How it works

- Consultation is crucial to developing the Project and finding what matters to the natural environment and communities in the area
- We need your feedback because you – the community – know the area best and are the ones who could be affected by what we do
- This is the first phase of consultation which introduces the proposals and sets out the proposed areas we are looking at onshore for the hydrogen infrastructure

Ways to provide feedback

Visit our website:
www.doggerbankd.com

Send us an email:
contact@doggerbankd.com

Call our Freephone information line:
0800 254 5029

Write to us:
FREEPOST DOGGER BANK D

Our land agents are Dalcour Maclaren

For enquiries contact Jenny Bennett

DBD@dalcourmaclaren.com 07551 553539

Our fisheries consultants are Brown & May Ltd

For enquiries contact Sarah Richardson or Alex Winrow-Giffin

Sarah.Richardson@brownmay.com 07721 344354

alex@brownmay.com 07760 160039

Community Access Points

Beverley Customer Service Centre,
7 Cross Street, Beverley HU17 9AX

Hedon Library and Customer Service Centre,
31 St Augustine's Gate, Hedon HU12 8EX

Hornsea Customer Service and Library,
Broadway, Hornsea HU18 1PZ

Withernsea Centre, Queen Street,
Withernsea, HU19 2HH

What happens next

- We will read and analyse all feedback sent to us and all of it will be considered as we continue to develop our proposals
- Following the consultation, we will provide a summary of the feedback we received and what we've done as a result
- In 2024 we will have our statutory consultation, when we will:
  - Present our updated proposals for Dogger Bank D
  - Publish our Preliminary Environmental Impact Report
  - Provide another opportunity to provide feedback
- This will inform our final design and our planning application.
- You can stay up to date by signing up for project updates at www.doggerbankd.com

CONTRIBUTING TO THE COMMUNITY

Contributing to the community

- Dogger Bank D is committed to supporting the communities close to our proposed developments.
- We believe in making a positive change to the communities in which we operate and we believe local people should be at the heart of this investment.
- It is usual for a community benefit programme to be available during the construction phase of a project but we would work on developing a Dogger Bank D programme separately to the planning process.
- To ensure a community commitment package is shaped fairly and tailored to local needs, consultation would be facilitated by independent consultants working with the local community.

Q&A

THANK YOU!

CONSULTATION CLOSES TUESDAY 7 NOVEMBER


D is the proposed stage
...of what will be the largest offshore windfarm
DOGGER BANK D
WIND FARM
it informs our PROPOSALS
You and your community know the area best
we want your feedback!
it won't be visible from shore!
210KM from shore
decarbonising the humber region
if it matters to you, it matters to us!
working with local stakeholders
HYDROGEN PRODUCTION
safety is at the CORE
USING ELECTRICITY FROM DOGGER BANK D TO PRODUCE CARBON-NEUTRAL GREEN HYDROGEN
and hard-to-electrify HEAVY INDUSTRY
PLANNING PROCESS
Announced! as part of a 'Nationally Significant Infrastructure Project'
FEB23
we must follow procedures in PLANNING ACT 2008
RATIONALE FOR DOGGER BANK D
homegrown clean energy!
WILL LOCAL COMMUNITIES BE ABLE TO GET LOWER ENERGY BILLS / SWITCH HEATING TO HYDROGEN IF PROJECT GOES AHEAD?
we always SHARE the economic benefit
monitoring TRAFFIC during construction
IS IT SAFE?
when handled RESPONSIBLY, hydrogen is less dangerous than more common flammable gases
both SSE and Equinor have experience with gases and great safety records
ELECTROLYSIS splits water into HYDROGEN and OXYGEN
SITE SELECTION FOR HYDROGEN INFRASTRUCTURE
ONSHORE & OFFSHORE
MINIMISE:
• environmental IMPACT
• technical risk
• requirement for additional infrastructure
IDENTIFY most direct CORRIDORS (for cabling, transport etc.)
PROTECTING AND ENHANCING ENVIRONMENT
undertaking an Environmental Impact Assessment
informs protections for environment during CONSTRUCTION, OPERATION and DECOMMISSION
A draft EIA will be presented for our next consultation in 2024
PROJECT DEVELOPERS:
equinor
sse Renewables